Portland Veterans Affairs Medical Center

Angioplasty

What is angioplasty?

Angioplasty is a procedure in which a doctor inserts a balloon catheter into a blocked artery to unblock the artery. The blocked artery may be an artery in your arm, leg, or neck. If the blocked artery is a blood vessel that supplies blood to the heart, the procedure is called coronary angioplasty, or percutaneous transluminal coronary angioplasty (PTCA). A catheter is a thin tube inserted into a blood vessel either at the elbow or groin. The catheter is pushed through the blood vessel to the blockage in the artery. Inflating a balloon at the tip of the catheter stretches the narrowed artery. Your health care provider then deflates the balloon and removes the catheter and balloon. The stretching of the artery greatly improves blood flow through the artery. Often a metal device called a stent is left in the artery to improve chances that the blood vessel will stay open.

When is it used?

Arteries can become blocked or narrowed when certain substances build up in the artery wall. These substances -- cholesterol, minerals, blood, and muscle cells -- are called plaque.



Angioplasty is used to treat:

coronary artery disease -narrowing or blockage of the arteries that supply blood to the heart.

angina pectoris -chest pain.

peripheral vascular disease -blocked arteries in the limbs, especially the legs. **carotid artery disease** -narrowing or blockage of the blood vessels in your neck.

Coronary angioplasty may be done after a **heart attack** to reduce heart muscle damage from the heart attack.

How do I prepare for angioplasty?

Plan for your care and transportation after the procedure and during recovery at home.

Before surgery, your health care provider will ask you to sign a consent form for angioplasty, bypass surgery, and angiography. (Angiography is an x-ray study of the blood vessels using dye.) This consent form is needed in case problems arise during the angioplasty and emergency surgery is needed.



Your health care provider will ask you not to eat or drink anything after midnight on the night before the procedure.

You will have blood tests, an electrocardiogram (ECG), and a chest x-ray before the procedure.

Someone at the hospital will shave and wash the area where the catheter will be inserted (arm or groin) to help prevent infection.

What happens during the procedure?

You will be given a local anesthetic to numb the area where the catheter will be inserted. You will stay awake during the procedure.

Your health care provider will thread a thin wire into the blocked artery through a needle he or she has inserted into the blood vessel in your arm or groin. The provider puts dye into the artery. X-rays are taken while the dye moves through your artery. Using these x-ray images, your health care provider will guide a catheter along the wire. When the catheter has reached the narrowed artery, the health care provider will inflate the balloon at the tip of the catheter several times, widening the blocked passageway. You may feel mild chest discomfort while the balloon is inflated. After one or more inflations and deflations of the balloon, your health care provider will remove the deflated balloon, catheter, and wire.

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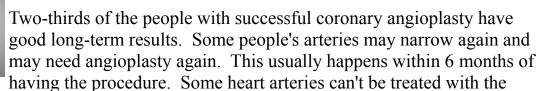
What happens after the procedure?

You will go back to your hospital room and rest in bed for 12 to 24 hours. You will most likely be able to go home the next day. You can usually resume normal activity within a day or two.



Coronary angioplasty is successful over 90% of the time. However, there are times when the balloon cannot enter the severely narrowed artery. Sometimes the narrowed or blocked artery won't widen. More rarely, the expanded artery may go into spasm and close abruptly during the procedure. If this happens, the catheter can be used to insert a device called a stent to keep the artery open. In

rare cases, emergency coronary artery bypass surgery may be needed.



balloon catheter and need open-heart bypass surgery.

What are the benefits of this procedure?

It can restore blood flow in the artery without major surgery.

It does not require replacing blood vessels in one part of your body with blood vessels removed from another part of your body (as is often necessary in bypass surgery).

It can be performed without using general anesthesia.



Carotid angioplasty reduces the chances for stroke.

Older adults who do not need a lot of help from others are likely to get the most benefit from this procedure.

What are the risks?

You may have an allergic reaction to the local anesthetic or x-ray dye.

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You may bleed a lot and need additional medicine or a blood transfusion.

The artery may be damaged. For example, the artery might be perforated during the procedure. Emergency bypass surgery or repair of the perforation (hole) would then be needed.



There is a small chance that you may have an acute heart attack (myocardial infarction), and your heart muscle might be damaged.

There is a risk of injury to the arm or leg used for insertion of the catheter.

The blockage may come back after 3 to 6 months.

The procedure could cause a stroke.



Deaths from coronary angioplasty occur in about 2% of the procedures. Ask your health care provider how these risks apply to you.

How can I take care of myself?



Eat a healthy diet that is low in fat and cholesterol. Exercise according to your health care provider's recommendation.



Keep your appointment for your scheduled post-discharge office visit.

When should I call my health care provider?

Call your health care provider right away if:

You have chest pain



You have constant or worsening pain or numbness in your arm or leg.

You have a fever.



You have shortness of breath.

Your arm or leg becomes blue and cold.



You have bleeding, excess bruising, or large swelling where the catheter was inserted.

Call your health care provider during office hours if:

You have questions about the procedure or its result.

You want to make another appointment.



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